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PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional) SCS-124-1118 Confirmation No. 4506
	Application Number 10/534,495	Filed May 10, 2005
	First Named Inventor LEWIN	
	Art Unit 2886	Examiner R. Punnoose

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

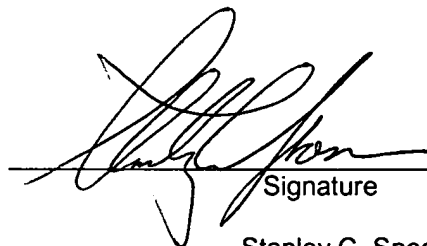
This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

- ☐ Applicant/Inventor
- ☐ Assignee of record of the entire interest. See 37 C.F.R. § 3.71. Statement under 37 C.F.R. § 3.73(b) is enclosed. (Form PTO/SB/96)
- ☒ Attorney or agent of record 27,393
(Reg. No.)
- ☐ Attorney or agent acting under 37CFR 1.34.
Registration number if acting under 37 C.F.R. § 1.34 _____


Signature

Stanley C. Spooner

Typed or printed name

703-816-4028

Requester's telephone number

September 30, 2010

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.*

☒ *Total of 1 form/s are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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**STATEMENT OF ARGUMENTS IN SUPPORT OF
PRE-APPEAL BRIEF REQUEST FOR REVIEW**



The following listing of clear errors in the Examiner's rejection and his failure to identify essential elements necessary for a *prima facie* basis of rejection is responsive to the non-final Official Action mailed June 30, 2010 (Paper No. 20100524).

The Manual of Patent Examining Procedure (MPEP) at Section 707.07(g) instructs that "piecemeal examination should be avoided as much as possible." The prosecution history of this application evidences piecemeal prosecution. The first Official Action on the merits in this application (October 19, 2007) indicated that all claims were allowable and the only objection was with respect to the Examiner's misreading of the title of the application. Since that time, the Examiner has sent a Notice of Non-Compliant Amendment (2/7/08) requiring an interview with the Examiner's supervisor on 3/17/08 resulting in withdrawal of the Notice of Non-Compliant Amendment; a non-final double patenting rejection (7/29/08), followed by another interview with the Examiner and his supervisor; followed by a further non-final Official Action on 2/9/09 and then a Final Rejection on 1/8/10. After numerous telephone interviews with the Examiner and the Examiner's supervisor in April and May of 2010, the Examiner withdrew his Final Rejection and dropped his argument that a use limitation in the preamble is not objectionable. In the telephone interview on May 17, 2010, the Examiner finally confirmed the withdrawal of the Final Rejection and a fifth Official Action (non-final) was mailed on June 30, 2010, which misstates several additional telephone interviews (the "Examiner-Initiated Interview" summary attached to the latest Official Action indicates that the interview "directly resulted in the allowance of the application" - in view of the current rejection, the Examiner probably checked the wrong box).

It is little wonder that the Examiner's recent request for a personal interview was not believed to be particularly helpful in view of the multiple telephone interviews with the Examiner and his supervisor which have not yet resulted in a notification of allowable subject matter since the October 19, 2007 Official Action. Applicants believe that the claim language is relatively straightforward and the errors in the Official Action are readily apparent.

Error #1. The Examiner fails to identify any prior art related to the claimed "structured light" generator

In attempting to support his rejection of independent claim 1 over the newly cited Kuchitsu reference, the Examiner fails to address the actual language of claim 1 and instead paraphrases the claim by stating that "claim 1 essentially comprises of three [sic] components."

However, the preamble of claim 1 specifies that it is a "structured light" generator where "structured light" is a well known term of art. Applicants have previously submitted evidence and made of record the definition of "structured light" (see the attachment to the Amendment filed 6/16/09) which is defined as "projecting a known pattern of pixels (often grids or horizontal bars) on to a scene." Applicants' specification on page 2 states "as used in this specification the term structured light generator shall be taken to mean a source which projects a plurality of distinct areas of light towards the scene." Thus, it appears that on page 6 the Examiner ignores the preamble of claim 1 which requires a "structured light" generator.

As pointed out in MPEP Section 2111.02, the *Kropa v. Robie* case clearly indicates that a preamble is claim language which must be considered, especially if it indicates the manner in which the components are assembled. In paragraph I of Section 2111.02 regarding "preamble statements limiting structure" the MPEP states that "any terminology in the preamble that limits the structure of the claimed invention must be treated as a claimed limitation."

Given the definition in Applicants' specification and the evidence of record as to the well-known definition of "structured light," the Examiner's ignoring of the preamble limitation in Applicants' claims is reversible error.

Error #2. The Examiner errs in concluding that Kuchitsu teaches a "structured light" generator

The Examiner admits that "Kuchitsu's apparatus outputs a constantly changing pattern." (Official Action, page 10, line 1). As noted above, the Examiner apparently ignores the well-known definition of "structured light" as projecting "a known pattern of pixels" since a constantly changing, random pattern disclosed in Kuchitsu does not suggest a "known pattern of pixels."

The definition of "structured light" also indicates that the "known pattern of pixels" are projected in such a way that "these deform when striking surfaces [allowing] vision systems to calculate the depth and surface information of the objects in the scene, as used in structured light 3D scanners." (Definition of "structured light" of record attached to 6/16/09 Amendment). Applicants' preamble specifies that the defined "structured light" generator illuminates the scene such that "light reflected from the scene can be imaged to provide range information" (claim 1, lines 1-3).

There is simply no suggestion that Kuchitsu's apparatus (which the Examiner admits outputs a constantly changing pattern) can provide any "range information" (from its random, constantly changing patterns) as required in the preamble of Applicants' claim. Because Kuchitsu does not disclose a "structured light" generator or the attributes thereof as recited in Applicants' preamble, Applicants' specification and in the definition of "structured light" known by those of ordinary skill in the art (as evidenced in the present record), the Examiner errs in misconstruing what is taught by Kuchitsu.

Error #3. The Examiner fails to identify where Kuchitsu has the claimed “projection optics” which are arranged “to project a regular array of distinct spots of the light source towards the scene”

As is known from the definition of “structured light” generator, there is a requirement that the light projected be a “regular array” of spots. This requirement is positively recited in the arrangement of the “projection optics” in Applicants’ claim 1 to require the projection of “a regular array” of spots of light.

The Examiner ignores this feature of Applicants’ claim, e.g., page 6 in the Examiner’s paraphrasing of the claim language, he merely states that projection optics are “for projecting an array of spots of the light source towards the scene” rather than the claim language of projecting “a regular array of distinct spots of the light source towards the scene.”

While it is noted that the Examiner alleges later on page 6 that Kuchitsu teaches projection objects to “project a regular array of distinct spots of the light source towards the scene.” However, merely reviewing the abstract of the Kuchitsu reference will inform the Examiner that

“subjects 6 such as colored transparent sheet-like small chips are inserted into a space part 7 of a moving body 2 so as to be freely rotated . . . when the moving body 2 is rotated and light is irradiated from the light source 3, many virtual images of the subjects 6 are formed by the reflection of light in the cylindrical body 1 like a kaleidoscope and projected on the screen 5 through an expanding lens. Consequently, extremely complex patterns can be automatically and continuously displayed and can be used for various purposes.”

Thus, Kuchitsu does not have a “structured light” generator which uses light reflected from a screen “to provide range information” nor does it project “a regular array of distinct spots of the light source.” Instead, as the Examiner admits, “Kuchitsu’s apparatus outputs a constantly changing pattern.” As can be seen from the Kuchitsu abstract, this constantly changing pattern is a random

constantly changing pattern caused by the chips falling through the space enclosed by the moving body 2.

Again, because the Examiner does not meet his burden of proof to identify how or where elements in Kuchitsu can comprise “structured light” as required by Applicants’ claim preamble and by the interrelationship of the “projection optics arranged together with said light source” there is no support for a *prima facie* case of obviousness and the rejection is improper.

SUMMARY

The present application has been delayed for at least three year by the Examiner’s failure to appreciate the definition of the term “structured light” as would be well understood by those of ordinary skill in the art. Evidence of that definition has been supplied by the applicant in the attachment to the June 14, 2009 amendment. Several characteristics of “structured light” are recited – in the preamble characterizing the light as light that when “reflected from the scene can be imaged to provide range information” and in the claim “to project a regular array of distinct spots of the light source towards the scene” – and yet these recitations are ignored by the Examiner. The only cited reference to Kuchitsu teaches only a “constantly changing” series of spots formed by random movement of reflective chips tumbling in a rotating cylinder (Kuchitsu Abstract) and thus fails to support any *prima facie* case of obviousness, let alone anticipation.

As a result of the above, there is simply no support for the rejection of Applicants' independent claim 1 or claims dependent thereon under 35 USC §102 and/or §103. Applicants respectfully request that the Pre-Appeal Panel find that the application is allowed on the existing claims and prosecution on the merits should be closed.